

Amendments to the Claims

There are no amendments to the claims. The following is a listing of the claims, including markings showing the changes relative to the last entered amendment.

Claims 1-30 (Canceled).

31. (Original): A wet etching method of removing silicon from a substrate, comprising:

depositing a layer comprising silicon in elemental form over a substrate comprising at least one of an oxide and a nitride; and

exposing the layer to an aqueous liquid etching solution comprising a hydroxide and a fluoride, and having a pH of at least 10, under conditions and for a period of time effective to etch the elemental silicon from the substrate selectively relative to the at least one of an oxide and a nitride.

32. (Original): The method of claim 31 wherein the at least one comprises an oxide.

33. (Original): The method of claim 31 wherein the at least one comprises a nitride.

34. (Original): The method of claim 31 wherein the pH is at least 11.5.

35. (Original): The method of claim 31 wherein the pH is at least 12.0.
36. (Original): The method of claim 31 wherein the pH is no greater than 13.8.
37. (Original): The method of claim 31 wherein the weight percent of all fluoride in the etching solution is from 0.01% to 5% and the weight percent of all hydroxide in the etching solution is from 0.01% to 25%.
38. (Original): The method of claim 37 wherein the weight percent of all fluoride in the etching solution is from 0.01% to 0.5% and the weight percent of all hydroxide in the etching solution is from 0.01% to 1%.
39. (Previously Presented): The method of claim 31 wherein the hydroxide comprises an ammonium hydroxide, the volumetric ratio of all fluoride to all hydroxide to all water is about 1:5:40 as NH_4F (40% by volume in water): ammonium hydroxide (25% by volume in water): deionized water.
40. (Original): The method of claim 31 wherein the hydroxide comprises an ammonium hydroxide.
41. (Original): The method of claim 31 wherein the hydroxide comprises an organic hydroxide.

42. (Original): The method of claim 41 wherein the organic hydroxide comprises any one or more of tetramethyl ammonium hydroxide, tert-butyl ammonium hydroxide, and another quaternary ammonium hydroxide.

43. (Original): The method of claim 31 wherein the hydroxide comprises an inorganic hydroxide.

44. (Original): The method of claim 43 wherein the inorganic hydroxide comprises an alkali metal hydroxide.

45. (Original): The method of claim 31 wherein the fluoride comprises an inorganic fluoride.

46. (Original): The method of claim 45 wherein the inorganic fluoride comprises an alkali metal fluoride.

47. (Original): The method of claim 45 wherein the inorganic fluoride comprises ammonium fluoride.

48. (Original): The method of claim 31 wherein the fluoride comprises an electrolyte with an organic cation.

49. (Original): The method of claim 48 wherein the electrolyte with the organic cation comprises any one or more of tetramethyl ammonium fluoride, tert-butyl ammonium fluoride, and another quaternary ammonium fluoride.

50. (Original): The method of claim 31 wherein the hydroxide comprises an organic hydroxide and the fluoride comprises an inorganic fluoride.

51. (Original): The method of claim 31 wherein the etching solution consists essentially of water, an organic hydroxide and an inorganic fluoride.

52. (Original): The method of claim 31 wherein the layer consists essentially of silicon in elemental form.

53. (Original): The method of claim 31 wherein at least a majority of the layer comprises polycrystalline silicon.

54. (Original): The method of claim 31 wherein at least a majority of the layer comprises amorphous silicon.

55. (Original): The method of claim 31 wherein at least a majority of the layer comprises monocrystalline silicon.

56. (Original): The method of claim 31 wherein the layer consists essentially of polycrystalline silicon in elemental form.

57. (Original): The method of claim 31 wherein the layer consists essentially of amorphous silicon in elemental form.

58. (Original): The method of claim 31 wherein the layer comprising silicon is undoped with any p-type and n-type conductivity enhancing impurity.

59. (Original): The method of claim 31 wherein the layer comprising silicon is doped with at least one of p-type and n-type conductivity enhancing impurity.

60. (Original): The method of claim 59 wherein the conductivity enhancing impurity is n-type.

61. (Original): The method of claim 59 wherein the conductivity enhancing impurity is p-type.

62. (Original): The method of claim 31 wherein fluoride presence in the etching solution is effective under the conditions to achieve increased uniformity in amount of silicon removal across the substrate than would otherwise occur under identical conditions for the period of time using an identical etching solution but with absence of fluoride in the etching solution.

Claims 63 and 64 (Canceled).

65. (Previously Presented): The method of claim 31 wherein the etching solution consists essentially of fluoride, hydroxide, and water, and having a pH of from 12.2 to 12.9.

66. (Previously Presented): The method of claim 65 comprising etching the elemental silicon selectively relative to the at least one of an oxide and a nitride at a rate of greater than 500:1 using said etching solution.

67. (Previously Presented): The method of claim 65 wherein the at least one comprises an oxide.

68. (Previously Presented): The method of claim 66 wherein the at least one comprises an oxide.

69. (Previously Presented): The method of claim 65 wherein the layer comprises undoped amorphous silicon.

70. (Previously Presented): The method of claim 66 wherein the layer comprises undoped amorphous silicon.

71. (Previously Presented): The method of claim 67 wherein the layer comprises undoped amorphous silicon.

72. (Previously Presented): The method of claim 65 wherein the layer comprises polysilicon.

73. (Previously Presented): The method of claim 66 wherein the layer comprises polysilicon.

74. (Previously Presented): The method of claim 67 wherein the layer comprises polysilicon.

75. (Previously Presented): The method of claim 31 wherein the etching solution consists essentially of ammonium fluoride, tetramethyl ammonium hydroxide, and water, and having a pH of from 12.2 to 12.9.

76. (Previously Presented): The method of claim 75 comprising etching the elemental silicon selectively relative to the at least one of an oxide and a nitride at a rate of greater than 500:1 using said etching solution.

77. (Previously Presented): The method of claim 75 wherein the at least one comprises an oxide.

78. (Previously Presented): The method of claim 76 wherein the at least one comprises an oxide.

79. (Previously Presented): The method of claim 75 wherein the layer comprises undoped amorphous silicon.

80. (Previously Presented): The method of claim 76 wherein the layer comprises undoped amorphous silicon.

81. (Previously Presented): The method of claim 77 wherein the layer comprises undoped amorphous silicon.

82. (Previously Presented): The method of claim 75 wherein the layer comprises polysilicon.

83. (Previously Presented): The method of claim 76 wherein the layer comprises polysilicon.

84. (Previously Presented): The method of claim 77 wherein the layer comprises polysilicon.